

Claims

1. Local communications network between a first mobile station, such as a mobile telephone, and a second station, such as a fixed-line telephone, through a relay antenna and a data transmission link which links the antenna to a fixed radio frequency station, characterized in that the transmission link is a wireless radio frequency transmission link (6).

2. Communications network in accordance with Claim 1, characterized in that the wireless link (6) includes means for transmitting and receiving signals at a frequency between 400 MHz and 18 GHz, the frequency being chosen within this frequency range.

3. Network in accordance with Claim 2, characterized in that wireless connection (6) is equipped with an electronic device (12) associated with antenna (5) and an electronic device (13) associated with the station (7) and a wireless transmission channel (14) between these two devices.

4. Network in accordance with Claim 3, characterized in that the antenna electronic device (12) includes means for analog/digital conversion (18) and station electronic device (13) includes means for digital/analog conversion (30).

5. Network in accordance with either of Claims 3 or 4, characterized in that the antenna and station electronic devices (13) include means for compressing or decompressing the signal to be transmitted.

6. Network in accordance with any of Claims 1-5, characterized in that, in the case of a multiband antenna (5), antenna electronic device (12) includes means for identifying the channel on which the signals to be transmitted are received by the antenna.

7. Network in accordance with any of Claims 1-6, characterized in that the antenna electronic device (12) includes means to verify the presence of a station (7) capable of functioning at the frequency at which the signals to be transmitted are received by the antenna (5).

8. Network in accordance with any of Claims 1-7, characterized in that it includes several stations (7), each of which is capable of functioning at a predetermined frequency, these stations being capable of communicating with an appropriate multi-band antenna.